MOU signed to develop low cost medical products

1519. DR. SANJAYA SINH: Will the PRIME MINISTER be pleased to state:

(a) whether it is a fact that a Memorandum of Undertaking (MOU) has recently been signed between the Secretary, Ministry of Defence and Secretary, Department of Science and Technology to develop low cost medical products in the country; and

(b) if so, the details thereof?

THE MINISTER OF STATE IN THE MINISTRY OF DEFENCE (SHRI MALLIKARJUN): (a) and (b) It is proposed to form a 'Society for Biomedical Technology' as a non-profit organisation with its registered office at Bangalore. The Society will develop medical devices based on spin-off technologies originating from high-tech R&D work being carried out by Defence R&D laboratories. Defence Research & Development Organisation, Department of Welfare, National Institute of Rural Development, Nizam's Institute of Medical Sciences and Department of Science & Technology are participating in this Society and a Memorandum of Understanding among the Secretaries/Heads of the participating Departments/Organisations is being entered into.

Expendiure on Science and Technology Institutions

1520. DR. SHRIKANT RAMCHANDRA JICHKAR: Will the PRIME MINISTER be pleased to state:

(a) what is the total amount of expenditure incurred by the Department of Science and Technology on the Thirteen autonomous institutions under it, during the last three years;

(b) whether any evaluation has been made of their functioning; and

(c) whether the CAG of India has passed any comment recently about these institutions?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND THE MINISTER OF STATE IN THE MINISTRY OF PARLIAMENTARY AFFAIRS DEPARTMENT OF ELECTRONICS AND DEPARTMENT OF OCEAN DEVELOPMENT (SHRI P. R. KUMARAMANGALAM): (a) The total amount of expenditure (both Plan and Non-Plan) incurred by the Department of Science and Technology on the thirteen autonomous institutions under it during the last three years is as follows:

(Rupees in lakhs)

1990-91	1991-92	1992-93
3988.00	4296.55	4878.00

(b) Evaluation is a continuous process. Every autonomous institution has an Apex Body, viz., Governing Body/Council consisting of eminent scientists who review the progress of the work being done in the autonomous institution. In several institutions, there is a system of Research Advisory Committee/Research Advisory Council/Academic Advisory Committee which evaluates the progress of S&T activities. In addition, the Government constitute, from time-to-time, Review Committees comprising of experts.

(c) The Audit Report of CAG of India for the year ending 31st March, 1992 (presented to the Parliament in May, 1993) includes audit review on one of the autonomous institutions viz. Indian Association for the Caltivation of Science, Calcutta.

Validation period for seasonal rainfall

1521. DR. SHRIKANT RAMCHANDRA JICHKAR: Mill the PRIME MINISTER be pleased to state:

(a) what is the procedure adopted in forecasting the quantitative seasonal rainfall for the country as a whole during the South West monsoon; and

(b) what is the nature of the newly developed long range forecast model?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY, DEPARTMENT OF ELECTRONICS AND OCEAN DEVELOPMENT AND THE MINISTER OF

STATE IN THE MINISTRY OF PARLIAMENTARY AFFAIRS (SHRI P. R. KUMARAMANGALAM): (a) and (b) India Meteorological Department uses a Power Regression Model to forecast the total quantum of monsoon rainfall over the entire Southwest Monsoon season (June to September). The Model uses observational data of a set of 16 regional and globol land-ocean atmospheric parameters. These parameters are physically related to the Indian summer monsoon rainfall and some observational data upto the end of May are required for making the forecast.

Major Space Programmes

1522. SHRI MURLIDHAR CHANDRAKANT BHANDARE: Will the PRIME MINISTER be pleased to state:

(a) the major space programmes undertaken since 1980;

(b) the details of the achievements made under these programmes;

(c) the extent to which these have been useful in various activities; and

(d) the details of the programmes to be undertaken during the Eighth five year Plan?

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (SHRI BHUVNESH CHATURVEDI): (a) to (c) The main thrust of the Space Programme undertaken since 1980 has been towards establishing national system using space technology for telecommunications, broadcasting meteorology and remote sensing for the effective survey and optimal management of national natural resources. The indigenous development of various application setellites, their payloads and the capability to lunch these satellites are integral to this objective.

In order to achieve the above objectives, major new projects and missions such as Augmented Satellite Launch Vehicle (ASLV), Stretched Rohini Satellite Series (SROSS), Indian Remote Sensing Satellite (IRS), Polar Satellite Launch Vehicle (PSLV), INSAT-1C and ID and INSAT-II Test Spacecrafts (A and B), INSAT-2CDE, IRS 1C/1D and Geo-synchronous Launch Vehicle (GSLV) Projects were sanctioned during this period.

The following major projects were completed during this period:—

(i) Communication Satellite APPLE was launched in June 1981 utilising the free launch opportunity provided by European Space Agency. APPLE was used for 27 months for conducting advanced satellite communication experiments, TV/Radio networking, Digital communication experiments and tele-conferencing, telemedicine and facsimile transmission for newspaper printing.

(ii) Bhaskara-II satellite carrying remote sensors in the visible and microwave region of the electro—magnetic spectrum paved the way for an end-to-end experimental satelite romote sensing programme.

(iii) The Second experimental flight of SLV-3 conducted in July 1980 placed successfully a 35 kg Rohini Satellite in near earth elliptical orbit. Two more flights of SLV-3 were realised in May 1981 and April 1983, marking the fruition of vital element of technology development, SLV-3 being a crucial precursor to the ASLV and PSLV prijects.

(iv) Under INSAT System, INSAT-1B, INSAT-1C and INSAT-1D were launched successfully in August 1983, July 1988 and June 1990 respectively, providing excellent operational services for satellite based telecommunications, broadcasting and meteorology services in the country.

(v) IRS-1A was launched successfully in March, 1988 followed by successful launch of IRS-1B in August 1991. These two spacecrafts are providing valuable data on the